The selection criteria of collective bricolage: the case of the Listed-Buildings Institution

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ABSTRACT

The paper studies the role of collective bricolage and material artefacts in the maintenance of an institution. It investigates the selection criteria that guide actors in their collective choice of resources, which they combine through bricolage in order to shape or reshape a material instantiation of an institution. The present case study concerns the Institution of Listed-Buildings, *i.e.* buildings protected as national patrimony. Through a Grounded-Theory Methodology, I analyse how actors and different stakeholders of construction works maintain the legitimacy of a listed building while modernizing it without distorting its embodied cultural heritage. Based on six selected listed buildings – three in Denmark and three in France – I identify a key dynamic of collective bricolage, notably how actors select material resources they have at hand. The findings point to their use of 1) a meta-resource that captures the essence of an institution, and 2) six different criteria that enable the selection of material resources complying with this meta-resource: individual preference, collective and field alignment, technical features, economics, time and space. These selection criteria facilitate collective decision-making among actors who seek to instantiate an institution through a shared meta-resource. In my empirical case, the actors instantiated the Listed-Buildings Institution through the meta-resource of authenticity, whose leitmotiv is *"keeping the heritage above all"*. The notions of meta-resource and selection criteria help us comprehend how actors collectively maintain an institution by instantiating it.

Keywords: collective bricolage, institutional maintenance, selection criteria, meta-resource, listed buildings

INTRODUCTION

In this paper, I study the role of material artefacts in the maintenance of an institution by highlighting the criteria that enable actors to collectively select resources for this purpose.

At a micro-level, actors affect institutions (Rojas, 2010). The deliberate actions in which they engage for this purpose are referred to as institutional work, which is defined as *"the purposive actions of the individual and organizations at creating, maintaining and disrupting institutions"* (Lawrence & Suddaby, 2006: 215). Institutional maintenance work *"involves supporting, repairing or recreating the social mechanisms that assure compliance".* Actors who engage in this type of institutional work tend to ensure adherence to regulative systems or taken-for-granted practices and to reproduce existing norms and belief systems (cf. *ibid,* 2006). This work is currently the subject of increasing interest from scholars. One of the gaps that still have to be filled is the question of how material elements impact on institutional maintenance, and more widely on the development of integrative, dynamic models of institutional work. Moreover scholars are encouraged to conduct more comparative and qualitative field studies on the topic of institutional work (Lawrence, Leca & Zilber, 2013).

To address this literature gap, I build on recent work showing artefacts to be carriers or instantiations of formalized institutions (Blanc & Huault, 2013). I define institutions not only as the "*cognitive, normative and regulative elements that provide stability and meaning to social behaviour"* (Scott, 2008), but also as *"an unstructured and implicit thing"* (Heclo, 2008: 57). An artefact is an object that can be transformed and manipulated by actors to reflect and shape the institution. It operates by representing the culture, values and symbols associated with a particular institution and/or by infusing the object with new content

(Hilpinen, 2011). The actions performed on an artefact impact on the instantiation of the institution (Jones & Massa, 2013), which may or may not have consequences for the institution. For instance, these actions could entail the integration or the removal of tangible elements that embody both technical and symbolic institutional dimensions (Suchman, 2003) and echo the institution's legitimacy. Alternatively, they could undermine its legitimacy.

To identify how an instantiation changes within an institutional maintenance context, I analyse the collective selection of resources that leads to a new instantiation of the institution in question. I am particularly interested in how collective bricolage is used for this purpose. Coming from Lévi-Strauss' *The Savage Mind* (1962/1966), bricolage is defined as "*making do by applying combinations of the resources at hand to new problems and opportunities*" (Baker & Nelson, 2005: 333). By extension, collective bricolage mutualizes all the actors' resources, *via* the dialogue they implement with their individual resources. They achieve a common objective by crafting a unique outcome that differs according to which resources actors decide to use and succeed in intertwining (Duymedjian & Ruling, 2010).

The research question guiding this paper is the following: **how do actors collectively select resources to adapt the material instantiation of an institution while maintaining its legitimacy?**

To answer this question, I present my results in the field of architecture through the case of the Listed-Buildings Institution (LBI) that includes concrete listed buildings, dedicated practices and regulations, *etc*. More specifically I focus my research in the case of listed building construction works, such as renovation or extension, where the architect has simultaneously to rescue the authenticity of a building and to transform it into a modern

installation (Diez, 2012). Regarding the natural life and evolution of a building (Brand, 1995), the rise of new ideas, as the sustainable development paradigm, is calling for insight into the dynamic through which this kind of building, with a recognized patrimony protected by the State within the LBI, undergoes building works and the integration of new materials. This updating is very important because its legitimacy as a listed building and its survival, *i.e.* the possibility of keeping the function the building was built for or was protected with, depend on how architects intertwine the "old" and the "new", *i.e.* respect its Heritage side and implement modern requirements through the use of materials.

The main results of the study pertain to how actors who handled the construction works implemented collective bricolage within an institutional maintenance context. Indeed by combining resources that different actors had "at hand", *i.e.* the material resources coming directly from the existing listed building and from the new materials or solutions architects habitually use in new buildings and have in their individual stock, their actions on the instantiation respect the LBI legitimacy they themselves elaborated through the development of the authenticity of the building. This authenticity, a meta-resource, helped actors delimit the scope inside which they could maintain the institution while modernizing it. And to collectively select resources that were materially used and arranged, the actors grounded their decisions in six different selection criteria: individual preference, collective and field alignment, economics, technical features, time and space. They were linked to the different stakeholders' repertoires and organizations that took part in the construction works and they represented the borders within which the actors had to interact; these criteria both facilitated and constrained collective decision-making. These findings point to a theoretical contribution in the understanding of collective bricolage. Meta-resource and selection criteria for collective resources represents two important elements in our understanding of how individual and

organizational actors seek to adapt a material artefact while securing the defining features of the institution it instantiates[1].

The paper is structured as follows. After introducing the theoretical framework based on institutional maintenance work, artefacts and bricolage, I present in the methodology section how I selected and analysed my six cases through a Grounded-Theory approach. Then, I detail my results in two sections: one on how the meta-resource is designed and another on how the materials are selected according to the six criteria. I discuss the meta-resource and selection criteria afterwards and relate them to collective bricolage, the questions of agency, and the notion of dialogue. Finally, I conclude the study with a few new research perspectives.

THEORETICAL FRAMEWORK

Institutional Maintenance Work and Artefacts

By integrating agency into institutions, the Institutional Work stream breaks the static vision of the institution and highlights to what extent they are the results of human actions that try to reproduce, destroy or alter them (Jepperson, 1991), *i.e.* how actors can create, maintain of disrupt institutions (Lawrence & Suddaby, 2006). *De facto*, this recent research program gives *"an increasingly well-developed framework for studying various forms of institutional change, and particularly in understanding the role of actors in these processes"* (Gawer & Philipps, 2013: 1039).

[1] For instance, how is the luxurious watch industry going to adapt regarding the digital jolt and the appearance of smartwatches?

Overstepping the role of discourse (Philipps, Lawrence & Hardy, 2004), the materiality question emerged as a central, *"but relatively unexplored",* dimension of institutional work (Lawrence & Suddaby, 2006: 245). Indeed, scholars analysed that institutional work operates as a reallocation of institutional resources (Leca & Naccache, 2006), which can be represented by artefacts (Dover & Lawrence, 2010). For instance, Gawer and Philipps (2013) demonstrate *"how actors engaged into institutional work can use artefacts that instantiate established institutions to facilitate the transition between past habits and the elaboration of new habits for the future"* (Lawrence et al., 2013: 1028).

By carrying tacit knowledge or collective memory and by highlighting the product of human actions (Gagliardi, 1990), artefacts enable agency but also embody cultural values that actors try to communicate (Rafaeli & Vilnai-Yavetz, 2004). Moreover, artefacts are actually used to respond to novel practices that can destabilize the existing institutional order (Jones & Massa, 2013) and whom actors failed *"to reproduce previously legitimated or taken-for-granted actions"* (Lawrence & Suddaby, 2006: 217). As a major ingredient that composes artefact, such as iron or stone for buildings (Jones, Boxenbaum & Anthony, 2013), and depending on how it is implemented in a palpable manner, the material element, which can be thus a physical object, can alter the meaning of an artefact (McDonnell, 2010) and by extension jeopardize the legitimacy of the institution's instantiation.

Taking into account the use of artefacts to glimpse the possibilities to analyse the work category of "maintaining", which was for a long time overlooked in the literature, recent studies argue that an institution can be maintained through its change or modernization by reaffirming existing legitimacy (Quinn-Trank & Washington, 2009; Currie et al. 2013) and

more interestingly by using material resources (Patriotta, Gond & Schultz, 2012; Raviola & Norbäck, 2013). However, even though the role played by tangible materials in the durability of an institution and its legitimacy has already been explored and confirmed (Pinch, 2008; Blanc & Huault, 2013), the question of how the artefact is constituted to fulfil that maintenance purpose still remains unclear in the literature.

Hence the understanding of how these materials or resources are selected, especially in such a constraint institutional context, makes relevant the mobilisation of Lévi-Strauss' notion of bricolage (1962), which has been analysed as a hybrid form of institutional maintenance work (Colombero, 2014).

Bricolage

Developed in 1962 by Claude Lévi-Strauss, bricolage refers to the simple paradigm that actors always and only uses what is "at hand" whatever the task they have to perform. With the elements they have in her repertoire, actors practicing bricolage continuously interacts with them in order to make an inventory of the possible solutions they give access to. Four major characteristics of bricolage emerge from the seminal work of Lévi-Strauss:

1) do with what is at hand, *i.e.* in stock,
2) to recombine materials which can be resources, structures (Ciborra, 1996), myths, technologies or knowledge (Zahra, Gedajlovic, Neubaum & Shulman., 2009),
3) materials which retain their own uses and identities in case of dispersion (Chao, 1999) and
4) give rise to new and previously unknown propositions (Lanzara, 1999) with new features whose number is limited (Rao, Monin & Durand, 2005).

Through “trial-error” tests (Garud & Karnøe, 2003), the bricoleurs submit and call into questions their proposals if the resources they manage and intertwine are implemented in an inappropriate manner regarding their given purpose. As a consequence, this approach can reject the improvisation scheme underlined by Baker, Miner and Eesley (2003) where the conception and the realization of the relevant solution are one unique action.

Bricolage underlines a dynamic where actors apply combinations and arrangements to new problems and opportunities in order to achieve a specific goal (Højgaard Christiansen & Lounsbury, 2013) that could have consequences on an institution (Baker & Nelson, 2005). If this goal is common among actors, there is collective bricolage (Duymedjian & Rüling, 2010). Besides, within the institutional work literature and as multiples scholars suggested it recently (*e.g.* Glynn, 2008; Lawrence et al., 2013), with the interaction actors had with the materials they intertwined, the tangible outcome coming from the addition of symbolic institutional artefacts can also be seen as a result of bricolage (Cartel, 2013).

When a jolt (Greenwood, Suddaby & Hinings, 2002) affects both the institution and its instantiations, bricolage encourages the ability of adaptability and approaches the resilience that allows an organization or its members to overcome a crisis by maintaining both consistency of identity and the capacity to act (Weick, 1998). Also the bricoleurs remain more creative under pressure and they can recombine existing resources for new purposes in order to answer environmental changes, thanks to an unusual use of those resources. Using bricolage as a mechanism of legitimation (Desa, 2012), the actors assert their desire to defy the institutional constraints, especially when their aim is to maintain an institution while modernizing it.

If the bricolage concept is experiencing an increasing interest from scholars that try to define all its main features, there are still very few papers that explain how bricolage functions and what its underlying mechanisms are (*e.g.* Boxenbaum & Rouleau, 2011). More specifically what is still unknown is how the actors are able to use and arrange all the resources they have at hand and how they can initiate collectively such a selection, such a dialogue between them which *"starts from the moment the bricoleur is confronted with an objective or a practical function to be fulfilled"* (Duymedjian & Rüling, 2010: 137).

RESEARCH DESIGN

The Listed-Buildings Institution (LBI)

Beyond the shared popular leitmotiv *"Heritage always come first"* that rules the LBI, its major aim is to legally protect buildings with architectonic or historical qualities highlighting some national meaning to transmit them to forthcoming generations. Both old and modern buildings can be listed following different levels or labels of protection. The preservation applies to some parts or to the whole building and it is a devoted Cultural Public Office (CPO) that manages it and approves alterations in case of renovation or extension; or at least advices what should be done. By doing so, the preservation issue is under the responsibility of numerous actors: the dedicated architects from CPOs and appointed agencies, the client who is most of the time the owner, the protection societies, the patrons, *etc*. If it was unconceivable to add materials that impair their aesthetics side, the appearance

of new ideas, such as sustainable development ones twenty years ago, set up a new deal and led to new institutional pressures (DiMaggio & Powell, 1983).

While the architects working on listed buildings still do not legally have to respect the new norms, *e.g.* green policy, and enjoy many exemptions, it is their appreciation that determines whether or not they should take them into account. And because some voluntary measures are expected to take effect as mandatory in a closed future and also as the interest in green building from the clients and patrons[2] keeps growing, most of listed buildings which undergo construction works are nowadays upgraded according to green ideas. Sustainability has to be understood here in terms of efficient energy consumption and building survival over time while providing a decent life quality and comfort to the users.

The LBI in Denmark & France

On one hand, because of the worldwide recognition of its architecture and its environmental awareness, I opted for buildings in Denmark. And on the other hand, I chose listed buildings in France, which is the country where the first measures of Heritage protection have been created after the 1789 Revolution (Jokilehto, 1986). Besides, the decision to study the LBI in these two countries came also from their similar approach to heritage preservation. Indeed, they both based the heritage protection on the values conveyed by the respect of a balance between the essence and building materials. To picture this balance as an architect explained to me, in Germany for instance, whatever the material used and "*the value of the age of the material"*, only the essence of the building is important. There, you can replace a cut-by-hand stone with a plastic produced by a 3D printer while it

[2] For instance, the Realdania foundation, which is one of the most known patron in Denmark, has just released a guideline book « Realdania 2050 » highlighting what Denmark should be at that time and underlining the need of Sustainable Development in the construction field.

would be impossible in Denmark or France *"where if* [material] *does have any value to anybody you can talk about heritage"*.

9.000 listed buildings are currently listed in Denmark and 44.000 in France from small pavilions, industrial facilities to castles. These latter are protected through the Danish Act on Listed Buildings and Preservation of Buildings and Urban Environments (2011) and through the French Historical Monuments Law (1913) codified in the Heritage Code (2014).

Cases Selection

Under several selection criteria, a preliminary step was to choose the first sample of buildings I should focus on. First, the building had to be a listed building regarding the legislation and still used with the same function it was built for or protect with. The interest was here to stay away from the adaptive re-use topic whose literature is saturated. Then it must have undergone renovation and/or extension and some new or sustainable materials had to be integrated into the building during these construction works. The access to the field, and to the actors present during the project, should be relatively easy; it is the reason why buildings belonging to private owners, or the Danish Royal Family for instance, were discarded. Finally, the actors working on the chosen buildings had to try to succeed in the aim of institutional maintenance. According to these requirements, I decided to study three listed buildings located in Copenhagen between October 2013 and March 2014 and, following what I have been discovered and what I need to deepen, three in Paris between July 2014 and January 2015. In Denmark, the first one has been chosen as a paradigmatic and critical case, the two others as maximum variation cases. In France I selected the buildings as stratified and random cases in order to increase the generalization potential (Flyvbjerg, 2006): the Nyboder

neighbourhood, the Sølvgade school, the Munkegård school, the French Pantheon, the Hôtel de Vendôme and the Molitor swimming pool. All cases are detailed in Table 1.

Insert Table 1 about here

Data Sources & Collection

Following a Grounded-Theory Methodology (Glaser & Strauss, 1967) and through these six cases, I collected three types of data: archival data, interviews and non-participant observations.

The archival data I collected were regulations texts (BR10 or Heritage Code), call for bids, architects drawings or proposals and guideline documents on the studied buildings or on the field (Realdania 2050 or the French Listing-Buildings Glossary). I also identified and read specialized historical books, conference proceedings (ICOMOS, 1994) or old magazines where the buildings were described and narrated – for instance the French periodical *Construction Moderne* –. In addition, I conducted twenty-four interviews with the main actors involved in these building works, *i.e.* with the architects and the closed stakeholders such as the clients, a patron, representatives in CPOs or some building or heritage experts; the interviews remaining my major source of information. The interest lies here to view the focal phenomenon from various actors and their perspectives (Eisenhardt & Graebner, 2007). I explained to them that I study the introduction of new materials into listed buildings and asked how they can integrate such materials without distorting the building heritage. Besides detailing the context of the works and the histories of both the buildings and the companies that took care of the works, the interviews focused on three major themes:

- a first one on the listed building renovation in general and on how the actors decided what to maintain and what to change or how they imagined the new building life,
- a second theme on how the organization dealt with these kinds of works and on how actors interact with each other,
- and a last one on the integration of new materials and modern issues, such as sustainable development concerns.

They lasted about one hour and a half and were conducted in the actors' working places or directly on the building sites. They were all recorded and transcribed. The interviews were semi-structured in order to generate new knowledge and to simulate interviewees' thoughts on the shortlisted themes (Justesen & Mik-Meyer, 2012).

In terms of theoretical sampling and to reach theoretical saturation, the interview guides evolved regarding the first results I gathered (Bryant & Charmaz, 2010). It is the reason why in France, I positioned my interview less on the sustainability issue and more on the listed building legitimacy question than before. I decided also to interview protection societies while being open-minded to cases that moved away the preservation of the function. Along that vein, I was interested in the cases of the Saorge monastery or the Hôtel de la Marine, which both had changed their function over time.

Last but not least, regarding the data collection, if I could not observe the action of renovation at the given moment in each listed building - some of them ended at least three years ago -, I could see with the architects *ex post* all the arrangements they made when, during the meeting, they showed and explained to me what they have done to the building and how they did it. Furthermore, when it was possible, I also practiced observation (Polanyi, 1966). For instance, I was a non-participant guest in the committee for the choice of the architect agency

that will renovate the Schlumberger Lecture Hall and I had the opportunity to follow construction works meetings in the Mines renovation and in the Pantheon restoration.

Data Analysis

To discover and analyse how the organization and the architects intertwined the old and the new, and more specifically what the selection criteria of a such bricolage were, I am using a Grounded-Theory Methodology (Charmaz, 2014); which is one of the most suitable methods to generate substantives theories out of data in organization studies (Locke, 2001) and to understand the process by which actors construct meaning from their intersubjective experience (Suddaby, 2006). I entered the field familiar with the literature pertaining to the subject and related ideas (Glaser, 1978), and started iteration between the emerging theory and the field through open coding. The coded data come from interviews, notes and archives but also from some pictures I took and schemes architects gave to me; those latter helped me to certify and interpret their actions (Rose, 2006; Ray & Smith, 2012). After this first step of open coding, where I identified such codes as "respecting a fixed budget", or "weakness within the law", I used axial coding to obtain themes in order to give coherence to the emerging analysis; for instance themes that emerged were "individual preference" or "normative tool". I practised iteration between data and literature all along the process. Moreover, memo writing helped me advance my analytical progression by a constant comparison between the different studies of the listed buildings (Dumez, 2013). My data structure is represented in Figure 1.

Insert Figure 1 about here

The paper has some limitations. The first one is related to the difficulty to get in touch with some actors of the project who never answered to my interview requests: for instance, both the headmasters of the Sølvgade and the Munkegård schools or some Heritage architects in France. Besides, some sources have not been exploited totally because of linguistic barriers; *e.g.* some Danish documents haven't been used like some Defence archives because of the time-consuming operation. Misunderstandings may also be present in the current document because of approximate translations between Danish, English and French.

Regarding the developments of the study and the search for theoretical saturation, the in-depth analysis is still going on; the aim of the paper being theory building (Eisenhardt, 1989). Therefore, the results presented here may evolve in the future.

FINDINGS

Designing the building authenticity

The main purpose of the constructions works was to modernize the buildings while respecting the Listed-Building Institution (LBI) and its legitimacy as embodied in these instantiations. To decide what they needed to preserve in the buildings to respect the LBI protection, both the client and the architects[3] had to determine the values that the building works should respect.

[3] For the sake of simplification and even though the client, or later the patron, are represented by architects, I will continue to speak of « client » or « patron » in order not to create a misunderstanding with the architects of the chosen agency.

The various reasons why a building was listed and why a specific element had been protected instead of another one were sometimes obscure. The actors therefore had to define the authenticity they wanted to manipulate. This was tantamount to discover the underlying heritage the actors tried to highlight with the restoration or renovation works and to know to what extent they could integrate new elements. The establishment of the building's defining values was also required to find solutions or alternatives to the common problem of *"you cannot do anything when a building is listed"* and hence to get the proposal accepted by the Cultural Public Office (CPO)[4]. This overall evaluation was also high-priority because, if the new building did not fit with the LBI criteria, despite its modernization, it would not be listed anymore. The need for LBI approval limited the actors' scope of action.

The LBI defines the common and accepted socio-cultural knowledge of "heritage" and of what a listed-building is. The actors evaluated the values of a listed-building according to a normative tool that reflected a regulative one. Both the norms and regulation associated with the listed-buildings institution were not only complementary but also taken-for-granted.

First of all, the actors relied on what the regulation advocated in terms of value protection for listed buildings. It helped them to pursue preservation and to understand the features under which buildings have been listed. The notion of heritage has been formalized and promulgated in the Danish Act on Listed Buildings and Preservation of Buildings and Urban Environments (2011)[5] or in the French Historical Monuments Law (1913) codified in the Heritage Code (2014). These laws showcase the historic and/or the aesthetic and artistic values of the "historical monument", *i.e.* a building that was not initially built for some

[4] In Denmark, it was the Board of Cultural Heritage. In France, it was a Listed-Buildings Architect or the DRAC, the Regional Office of Cultural Affairs.

[5] In this act, one of the major rules is that *"all building works, which affect a listed building, require a permit from the Minister for Culture";* a listed building owner cannot do what he wants with it and has to respect the protected values.

memorial concerns[6] (Riegl, 1903). Another value also had to be protected, which is the environmental value. It is used as an area security because: *"you don't, for example, in the little historical area in a town suddenly decide to make a skylight house or something like that ..."*. Besides, by providing exemptions, the LBI laws underlined that the materials *in situ* conveyed heritage values, even though they did not respect the current overall Building Regulations. As an architect explained regarding the choice of materials:

"... actually we have to follow the normal regulation for building; but you could get dispensations for everything except for fire [...] if you have a door, for instance, that is not fireproof enough, if you just don't make it any worse, you can keep it as it is".

This regulative tool was sort of weak in the sense that the official reasons why plenty of listed buildings had been listed remained unclear or unarticulated. In Denmark, this situation was reflected in the exact but paradoxical mission of the Board of Cultural Heritage (BCH), which was either to show history to people by freezing a building in time or to protect a given function to enable the building to keep evolving (cf. Articles 1 and 2 of the ALBPBUE, 2011). In France, this situation manifested in the brief biography of the building and the exhaustive collection of pictures without many details that summarized the protection applications. In fact, law acted as guideline to design a collective vision of authenticity among actors. It gave a formal approval to buildings that have already been protected and thereby legitimated. Furthermore, it is important to notice that, for the studied buildings, there was no written evidence detailing their attractive values and why the building deserved to be preserved or not. For instance, Munkegård Skole was listed because the world famous Danish architect Arne Jacobsen built it. Sølvgade Skole was listed because it was one of the first elementary school buildings ever built in Copenhagen. For Nyboder, no one in the Board of

[6] To go further in the differences between the "intentional monument" and the "historical monument" *cf.* to Riegl (1903).

Cultural Heritage could explain the official reasons for its listing. In France, the Molitor swimming pool was protected because it represented the France of the 1930s with luxurious Art Deco symbols. Pantheon is protected because it glorifies and commemorates great men and women of France, the national "Grands Hommes". The reasons for protecting the École des Mines were not obvious.

To deal with this blur, all the interviewees used a normative tool, equivalent to a shared practice, which is called *Genius Loci*[7] or the "Spirit of the Place". This concept captures the building's soul according to five themes with which architects can enhance values and complement the formal regulations on protection of buildings (Olesen, 2009):

- a holistic value, coming from the location and its (intangible) surroundings such as climate, *e.g.* in the Sølvgade Skole, this value was respected by integrating and taking care of the surroundings details, colours and shapes,
- an architectural value,
- a function value and its "*long-term potential*", *e.g.* the Molitor swimming pool,
- a material/physical value,
- a perceptual value captured through experience, *e.g.* the French Pantheon and what it represented for the country.

If each architect did not use the five previous points each time, they, at least, mentioned the original building design as a way to evaluate and consider what should be respected during the works and what they could do and add. The approaches of restoration or renovation works differed according to the protected values and what was possible to implement or adjust on

[7] For more information, cf. Norberg-Schulz, C. 1980. ***Genius Loci, Towards a Phenomenology of Architecture***, Rizzoli International Publications

the building. Consequently, interviewees maintained that *"each listed-building construction works is different from each other"*.

Each listed-building's authenticity was thus an *a posteriori* construction that emerged from an interpretation of regulative and normative tools that define the values that should be protected, and ideally respected, during the renovation works (Fig. 2). Consequently, this fabricated and evolving authenticity, or perception of the building heritage, became a common meta-resource around which all the actors' subsequent decisions would be taken. It explained why for instance, the yellow colour of Nyboder façades was kept, even though it was not the original colour; this colour, seen at minimum as a material and a historical value, is one of the reasons why the dwellings are so well known all around Denmark.

Insert Figure 2 about here

For the stakeholders, the design of the authenticity was relevant for knowing to what extent they could manipulate the listed building while remaining within the boundaries of the institution that protects it. To do so, the actors managed the coexistence of the "heritage" and the "modernity" by combining their resources at hand, be they physical artefacts or their associated values and rules, or the authenticity they designed for the purpose of protection. With the implicit knowledge associated with these artefacts, the actors used the material resources coming from the "old", *i.e.* the existing materials, shapes and structures, and the resources coming from the "new", *i.e.* new materials actors get used to work with and knew already how to get access to and how to use. By doing so, the architects complied with the building's authenticity that they themselves developed while bringing the building into the

current era by respecting the features for which it was listed. By extension, the actors maintained the legitimacy of the LBI.

A materials selection geared to six different criteria

As I just detailed in the previous part and following the meta-resource "authenticity", the actors had to simultaneously respect the listed-building protection and respond to the modernity requirements coming from the field. The actors had to choose between two types of resources they had in their shared portfolio. Beyond the common objective, actors engaged in resource selection to respect all the stakeholders' various requests: the client demanded modernity and comfort, the Cultural Public Office and sometimes the patron very much needed confirmation of the Heritage value of the building, the architects wanted to respect all the various wishes while creating at the same time their own masterpiece, *etc.*

During the whole building works project, the interactions among actors seemed to be a structured process with iteration between the architects and the stakeholders. In fact, these interactions were actually a dynamic of talks on what materials they were going to use and why. They were discussing which resources to draw upon to guide their selection of specific building materials. It appeared that this resources selection, and how different resources were intertwined with each other, depended on several criteria emerging from the collective context and the social environment. Using these criteria, actors collectively selected resources at hand, which they combined materially and used. Even though their importance were different across the six case studies, six different factors emerged in all of them; they were: individual preference, collective and field alignment, economics, technical features, space and time. It is important to specify here that these criteria were interrelated and their relative importance

could lead to different outputs: for instance, in Nyboder or in the Pantheon, the more economic resources the organization had, the more the heritage was respected. And on the contrary in the Munkegård Skole or in École des Mines, the more influential the collective and field alignment was, the less the heritage was respected and the more new requirements were integrated. In a general manner, if they are all linked to each other, it is difficult to clearly separate these six criteria.

The individual preference: Regarding their own repertoire and past experiences, all the actors had different self-interests and know-how when practising these kinds of works. These different motivations led to actions that might be contradictory or additional regarding the initial competition call for bids and what they wanted to implement. As I heard a lot during my interviews *"Heritage always comes first"*, and some actors paid particular attention to how the "old", with the shape and values, was respected: *"we* [the architects] *have to keep the building like it was"*. But on the contrary, some individuals insisted on how integrating sustainable development ideas, *i.e.* materials or technics, into old buildings *"is making sense"*. And some of them did not hesitate to apply to some green label or certification as ISO 14001 even though it was not a pre-requisite in the application. As the architect of the Sølvgade Skole told me *"because we* [she and her team] *believe in saving CO2 emission, we wanted to push these green developments and doing it over standard on purpose"*. That was why the architects created a functionalist façade where they integrated sustainable solutions to regulate energy consumption while staining it with colours of others existing buildings. Furthermore, some architects had also different feelings about what they thought the future users would expect and did not hesitate to getting far away from what have been validated in the beginning of the project by the client "*to make* [the building] *as attractive as modern as*

possible without putting the values in hazard" or to create their own vision and masterpiece of what the "old" should be nowadays.

The collective and field alignment: Each building project created a short-lived organization where decisions were made between each group of actors. Because they had self-interests that might be contradictory, each of them had to take into account the wishes of each other but sometimes some of them were not wishes but lines architects had to toe, especially when the wills came from the actor who paid for the project. Or when the building benefited from a high sympathy from the citizens. In Nyboder, in the wish of more "comfort", even though the CPO told me that *"some new materials put in some rooms are too luxurious regarding what the building represent and what kind of people* [students] *live here"*, the architects moved aside the Heritage side. Why? Because the influences of the client who had interests in such solution were stronger and the Heritage side could have been minimized despite the displeasure of the CPO. Such political concerns were also materially represented: *e.g.* in the Pantheon, the actors discussed a lot around the interest to rebuild a golden Dome as it was originally. The allegory of the gold precious metal, as a sign of external richness, was reported as a subject to strong debate between the politics and the citizens in such a global economic crisis. Here, if all the stakeholders were unanimous to do that way, the decision to rebuild the Dome in a neutral manner came from French political elites. Some regulative concerns were also emerging directly from the field with which the organization had to deal with, such as norms or rules. For instance: the temperature in a classroom had to be controlled, *"because it is the matter of health"* even though it involved adding some automatics or materials that would change protected artefacts.

The technical features: In most of the construction works I studied, the actors faced up to technical issues, which were either the main reason that pushed the client to renovate his building, like the moisture that put in jeopardy the Nyboder neighbourhood. Or a *"surprise"* on site that needed to be solved, as the lead particles importance in the Pantheon. Hence lot of discussions emerged among actors on the intention that *"whatever the aesthetics, only the technics matters"*, especially regarding the user's security. Paradoxically, this was not the case within the same building when the client decided that the new elevator, to enable disable people to enter in the building, would be hidden behind a column and far away from the passer-by's' view. So simultaneously to the material choice based on what respected the "old" and what respected the "new", the actors grounded their decisions on the technical features of the materials and on how the chosen object would cope with the on-going challenge. For instance in Nyboder and regarding the energy-consumption issue, the actors tested two different solutions of ventilation in two different renovated housing-rows in order to decide at the end of the project which one will be the best to redo – one was more heritage friendly, the other more "low-energy" consumption friendly. Moreover, it is interesting to precise here that some technical constraints, which appeared on the spot, were treated directly to maintain the original material: *e.g.* the stones full of lead were cleaned following a technical solution that was owned by a stakeholder. Concerning the new elements, the building transformation had to be minimal despite their integration. It was the reason why, for instance, the Danish CPO totally agreed to implement the Internet Wireless technology in the listed buildings, which is *"perfect* [because] *you don't have to put all these cold lines into the building"*.

The economics: *"All is about money"* was also a recurrent quote during the interviews because construction works on listed buildings are the more expansive works in this field. As one client explained to me *"the total amount is maybe three times as it would cost to another*

building or modern house in the same size". Moreover, it was not rare that the overall budget skyrocketed regarding what has been planned in the beginning. But again discourses were often divergent regarding the actors' interests. On one hand, patron gave as much money as possible to respect the heritage of a building because *"you can't redo a wall 20% cheaper"*. On the other hand, the client urged the architects to respect the allowed budget by doing the *"most important first and try to do cheaper on things* […] *that have no long lifespan"*. Economical paradoxical situations also existed depending on the project: a client could gave extra money to the architects to let them buy new materials which respected less the Heritage side that it helped the architect desire: *e.g.* the entire colour scheme of one of the school where the architect enjoyed working with the colours but did not know if she *"can capitalize and say how much money was spent on doing it"*. Finally, the economics may also be the reasons of a renovation. In the Molitor swimming pool, *"without the new luxury hotel complex associated with the pool, which allowed the owner to consider substantial cash flow, it would have been impossible to renovate and re-open the place"*; at least as all the stakeholders wanted its to be, even though the protection societies disagreed with the new program.

The time: Always implicit in a finite project, what led my interest to that point was for, in one of my case, the client made a decision because he *"was running out of time and needs to keep moving"*. He decided thus to put a building material – a window – that did not respect the heritage values, and the will of the CPO, but also had no specific sustainable features; some of its aspects were not as aesthetics as expected too. Going back to my data, I found another antagonist treatment of time in one of my other case where the actors did not care of having some delay in the building delivery: *e.g.* the pilot project of the student campus of Nyboder was delayed by about 6 months. For certain architects, *"time is all the time in the world"* said

the client. Besides, regarding the choice of material in Nyboder, by dreading the coming winter, the actors did not have the time to get the right tile for the roofing because it took half a year to get new production, so they used what they had already in stock. Almost the same happened in the Pantheon when the production of the needed material has been launched before the main architect made the decision of using it: *"otherwise it was too late to have the proper product"*. Finally, the time apprehension could also be seen in the way the actors forecasted the future of the materials and to what extent the chosen material was relevant to answer some issues related to the function for instance.

The space: While working on an existing building, all the stakeholders had to deal with a given and restricted space. This selection criterion operated on different levels according to how it was exploited. In the most of the present cases, if space was a constraint, it pushed the actors to find solutions, and thus to select accordingly the type of materials regarding what they had at hand and what they wished to build. In the Munkegård, for instance, because of the inability to reach the original building structure, and *de facto* because of the limited buildable space, the architects thought about the solution of digging an underground extension. By doing so, the integration of modern materials was possible because the modern building was hidden below the original one whose modification was impossible according to the CPO comments. Additionally, the actors often maximised the existing installation space, *e.g.* in the Sølvgade, they elevated the new building in the corner of the courtyard which was the only location available within the existing school physical borders. But the space limits can also be seen in a more geographical manner. In the case of the Pantheon renovation, the architect decided to use common iron because it was logistically too difficult to get access to the originally used and appropriate iron wished by the CPO and which was made in the United Kingdom. Then, the surrounding building space could indirectly act as a constraint.

Indeed, the smooth running of the building works could depend on the stakeholder capacity to optimise this space. Still in the Pantheon, the access to the (damaged) materials was only possible thanks to a risky scaffolding that filled in all the remaining space: the leeway being very low.

To sum up, these six criteria were all around the cases but were treated differently depending each project and actor. In all the cases I studied, these criteria at hand were interrelated; for instance in Nyboder, the patron provided unlimited budget (*economics*) to respect the CPO's wish of Heritage (*collective alignment*) while the client just though (*individual preference*) about modernity through materials (*technical features*) put into the existing building (*space*) in an limited construction time (*time*). It was the reason why the stakeholders, to integrate sustainable solutions inside the original building and respect the aesthetics side, tested a rainwater harvesting system for non-drinking water purposes – for the washing machines – by hiding it in the gutters which were renewed like the originals.

At the end, and following the respect of the meta-resource, it was according to these criteria that actors made or facilitated the decision on which materials they had to use to realize their common purpose.

DISCUSSION

In this paper, I analysed in a context of Institutional Maintenance how actors selected their resources at hand by focusing on how collective bricolage is implemented. To do so, I explored the mechanisms of selection and brought an original perspective to the concept of collective bricolage that can be interpreted as a model to understand how actors engage in

collective decision-making after they engage in dialogues with their individual repertoire and with each other. Indeed, even though the client often, if not always, had the last word, the iterations made between the stakeholders around these selection criteria led to new propositions, and *de facto* new choices (Kreiner, Jacobsen & Jensen, 2011).

So far, my main contribution to collective bricolage within the institutional literature is divided into two parts.

The first one is related to the creation of a common resource among actors to help them clarify the institution that needed to be maintained; this part acts as a *sine qua non* condition that enables bricolage. Indeed, in my study, the institution (LBI) and its instantiation (the individual listed-building) were connected to one another through the *a posteriori* construction of the meta-resource of "authenticity". This construction serves to preserve the legitimacy of the LBI, inasmuch as the construction reflects the three institutional pillars (Scott, 2008). The meta-resource helped the decision-making and played a role on the build-up between the "old" and the "new". Furthermore, my study of the agency taken place in this institutional context showed how actors reinterpreted the institution of LBI in order to legitimate their decisions in the field. In relation to Quinn-Trank & Washington (2009), I find here another example in which the legitimacy of the institution is reinforced; through the means of maintenance and the reconstruction and manipulation, actors carry out various aspects of the past to meet what the present needs (Peterson, 1999). In analysing the actions performed by the different stakeholders on the instantiation (Battilana & D'Aunno, 2009; Callon, 2009), my study also confirms that an institution can indeed be maintained through change (Raviola & Norbäck, 2013; Currie et al., 2013; Colombero, 2014).

The second part of the contribution is focused on the way the different actors collectively selected and implemented material resources. I analysed here some dimensions of how they reach consensus on decision via bricolage (Innes & Booher, 1999), how they initiated the dialogue with their repertoire, which was composed of heterogeneous resources, such as concrete building materials but also knowledge, people network, *etc.*, and how they mobilized it (Feldman & Orlikowski, 2011). The question of the dialogue in the bricolage process is still overlooked in the literature; I bring here an original perspective on how the bricoleur resources can be selected and used. In the paper, I underline that to start dialoguing with their resources at hand, actors have simultaneously to dialogue with various criteria "at hand", *i.e.* existing within the collective and its reachable environment, that help them to understand what others want to do and what resources they wish to use to respect their shared purpose. Using the meta-resource as a guideline, actors collectively choose the relevant resources that will change the instantiation of an institution. Their collective decision involves a number of criteria at hand between which they made trade-offs and which may differ according to the situation and actors at hand. The identified selection criteria are economics, collective and field alignment, individual preference, technical features, space and time.

As the resources included in the actors' individual stock are limited, so is the number of possible solutions (Lévi-Strauss, 1962). Any one solution would never be optimal because of the on-going iterations the actors could make regarding these previous factors. By clarifying the nature of the selection criteria, I argue that bricolage can be a structured activity (Perkmann & Spicer, 2014), far from the improvisation scheme often evoked in relation to bricolage (Douglas, 1986). Here the actors' decisions come from a two-level dialogue: between each actor and his/her own stock and between each actor's portfolio, which is possible through their collective sharing (Duymedjian & Rüling, 2010).

My main contributions are summarized in figure 3.

Insert Figure 3 about here

Based on these contributions pertaining to the dynamic of resources selection, I highlight several new research perspectives. I call for comparison with other case studies in other fields, but still within an Institutional Maintenance context, to validate or increase the number and the type of selection criteria identified in the study. Such studies could lead to a formal theorization of the grounded theory advanced in the paper. One option could be to focus on other cultural industries, such as the Museum sector where the eruption of new digital tools for visitors questions the institutionalized interpretative mediation practice (Vilatte, 2007). Still on bricolage, it would be interesting to explore the link between bricolage and the psycho-cognitive literature and more specifically from the Gestalt Theory (Köhler, 1929), which focuses on the gradual trial-error dynamic to solve a problem. The leitmotiv of this literature is that *"the overall shape overhangs the details",* which can also be an interesting angle to investigate the symbolism of the materials and why, even if the architects change minute details by adding sustainable development ideas, only the whole architecture and the heritage-associated values matter in terms of perception and experience.

Another perspective would be to participate in the debate on the dichotomy between the "engineer" and the "bricoleur" established by Lévi-Strauss. Based on stories on a different chosen field where the bricoleur suffers from a pejorative, or at least an insecure, image with the public, *e.g.* the pharmaceutical industry, it would be interesting to analyse to what extent these engineers processes tale or approach a bricolage practice, as I have defined it with the resources selection criteria. The case of the Pasteur Institute, created to answer the increasing

population demand of rabies vaccination, seems interesting and would provide an efficient example when the bricolage occurs in a context of Institutional Creation. Besides, this study could motivate some reflexivity around this notion for both scholars and practitioners.

CONCLUSION

The integration of modernity and the need to comply with its ideas have become essential in the whole society. In the studied case, survival of listed buildings depends on the reach of new requirements despite the maintenance of what characterizes them in the first place, *i.e.* the authenticity of the Heritage function (Heinich, 2009) and legitimates them in their common institution of Listed-Buildings. Because the heritage evolves perpetually, in an hundred years from now, when our successors will want to improve the leftover heritage, it is likely that they will do exactly what the current actors did: create and give the building a new authenticity in light of the institutional context while respecting the reasons for which it had been listed; they may also balance what should be respected with what could be changed in their selection of the relevant material artefacts. Regarding the research question on how actors select the materials to maintain an institution, I bring an original perspective to the notion of collective bricolage by highlighting the role of the meta-resource and six different selection criteria. The notion of bricolage allows scholars to explore an alternative kind of decision-making that may be especially relevant when requirements pertaining to the field have to be integrated and when decisions have to be made collectively (Kreiner, 2012). Through a multiple case study, I provided needed empirical evidence of the micro-actions of institutional maintenance that occurs as actors collectively adapt a material artefact in a manner that consolidates the legitimacy of the institution that it instantiates.

REFERENCES

Alvarez, J.L., Mazza, C., Strandgaard Pedersen, J. & Svejenova, S. 2005. Shielding idiosyncrasy from isomorphic pressures: towards optimal distinctiveness in European filmmaking. *Organization*, 12: 863-888

Angus, L.B. 1993. Masculinity and women teachers at Christian Brothers College. *Organization Studies*, 14(2): 235-260

Baker, T., Miner, A.S., & Eesley, D.T. 2003. Improvising firms: Bricolage, account giving and improvisational competencies in the founding process. *Research Policy,* 32(2): 255-276

Baker, T., & Nelson, R.E. 2005. Creating something from nothing: Resource construction through entrepreneurial bricolage. *Administrative Science Quarterly*, 50: 329-366

Battilana, J., & D'Aunno, T.A. 2009. Institutional work and the paradox of embedded agency. In T. B. Lawrence, R. Suddaby, & B. Leca (Eds.), *Institutional work: Actors and agency in institutional studies of organizations* : 31-58. Cambridge University Press

Blanc, A., & Huault, I. 2013. Against the digital revolution? Institutional maintenance and artefacts within the French recorded music industry. *Technological Forecasting and Social Change*, 1-14

Borum, F., & Westenholz, A. 1995. An Organization's Incorporation of Institutional Models: Actors and Institutional Ambiguity. Organizational Field Multiplicity and the Role of Actors. In: Scott, W. Richard and S. Christensen (Eds.), *The Institutional Construction of Organizations*: 113-131. Thousand Oaks: Sage Publications

Boxenbaum, E. 2006. Lost in translation. The making of Danish diversity management. *American Behavioural Scientist*, 49(7): 939-948

Boxenbaum, E., & Jonsson, S. 2008. Isomorphism, Diffusion and Decoupling. In R. Greenwood, R. Suddaby, C. Oliver, & K. Sahlin-Anderson (Eds.), *Handbook of Organizational Institutionalism:* 78-98. SAGE Publications

Boxenbaum, E., & Rouleau, L. 2011. New knowledge product as bricolage: Metaphors and scripts in organizational theory. *Academy of Management Review,* 36(2): 272-296

Boxenbaum, E., & Strandgaard Pedersen, J. 2009. Scandinavian Institutionalism: A case of institutional work. In Lawrence T. B., Suddaby R. & Leca B. (Eds.), *Institutional Work: Actors and Agency in Institutional Studies of Organization*: 178-204. Cambridge University Press

Brand, S. 1995. ***How Buildings Learn: What Happens After They're Built.*** Penguin Books.

Bryant, A., & Charmaz, K. 2010. ***The Sage Handbook of Grounded Theory***. Sage Publications Ltd

Callon, M. 2009. Civilizing markets: Carbon trading between in vitro and in vivo experiments. *Accounting, Organizations and Society,* 34: 535–548

Cartel, M. 2013. La fabrique de l'innovation institutionnelle: les marchés du carbone comme champs d'expérimentations managériales. *Thèse de Doctorat Mines ParisTech*: Paris

Chao, E. 1999. The Maoist Shaman and the Madman: ritual bricolage, failed ritual, and failed ritual theory. *Cultural Anthropology,* 14(4): 505-534

Charmaz, K. 2014. ***Constructing grounded theory: A practical guide through qualitative analysis (3rd Edition).*** Thousand Oaks CA: SAGE

Ciborra, C.U. 1996. The platform organization: Recombining strategies, structures, and surprises. *Organization Science,* 7: 103-118

Colombero, S. 2014. Bricolage as Institutional Maintenance Work: integrating new construction materials into heritage buildings. Paper presented during the International Workshop *"Giving visual and material form to ideas, identity and imagination: Architecture, urbanism and sustainable construction"* in Vienna (Austria) on May 12th 2014

Currie, G., Lockett, A., Finn, R., Martin, G., & Waring, J. 2012. Institutional Work to Maintain Professional Power: recreating the model of medical professionalism. *Organization Studies*, 33(7): 937-962

Czarniawska, B., & Sevón, G. 1996. ***Translating organizational Change***. Berlin: Walter de Gruyter

Desa, G. 2012. Resource Mobilization in International Social Entrepreneurship: Bricolage as a Mechanism of Institutional Transformation. *Entrepreneurship Theory and Practice,* 36(4): 727-751

Diez, F. 2012. Heritage. In C.G. Crysler, S. Cairns & H. Heynen (Eds.), *The Handbook of Architectural Theory*: 274-287. SAGE

DiMaggio, P.J., & Powell, W. 1983. The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. *American Sociological Review*, 48: 147-160

Douglas, M. 1986. ***How institutions think (1st Edition)***. Syracuse University Press

Dover, G., & Lawrence, T.B. 2010. Technology, institutions and entropy: understanding the critical and creative role of maintenance work. In *Technology and Organization vol. 29: Essay in honour of Joan Woodward*: 259-264. Emerald Group

Dumez, H. 2013. ***Méthodologie de la recherche qualitative***. Vuibert

Duymedjian, R., & Rüling, C.C. 2010. Towards a foundation of bricolage in organization and management theory. *Organization Studies*, 31(2): 133-151

Eisenhardt, K.M. 1989. Building theories from case study research. *Academy of Management Review,* 14: 532-550

Eisenhardt, K.M., & Graebner, M.E. 2007. Theory Building from cases: opportunities and challenges. *Academy of Management Journal*, 50(1): 25-32

Feldman, M.S., & Orlikowski, W.J. 2011. Theorizing Practice and Practicing Theory. *Organization Science*, 22(5): 1240–1253

Flyvbjerg, B. 2006. Five Misunderstandings about Case-study Research. *Qualitative Inquiry,* 12(2): 219-245

Friedland, R. 2013. God, love and other good reasons for practice: thinking through institutional logics. In M. Lounsbury & E. Boxenbaum (Eds.), *Institutional Logics in Action, Research in the Sociology of Organizations*, 39A: 25-50. Emerald Group Publishing

Gagliardi, P. 1990. ***Symbols and artifacts: views of the corporate landscape***. De Gruyter: New York

Garud, R., & Karnøe, P. 2003. Bricolage versus breakthrough: Distributed and embedded agency in technology entrepreneurship. *Research Policy,* 32: 277–300

Glaser, B.G. 1978. ***Theoretical sensitivity: Advances in the Methodology of Grounded Theory***. The Sociology Press: California

Glaser, B.G., & Strauss, A.L. 1967. ***The discovery of grounded theory: Strategies for qualitative research.*** Aldine Transaction (1999)

Glynn, M.A. 2008. Beyond constraint: how institutions enable identities. In R. Greenwood, R. Suddaby, C. Oliver, & K. Sahlin-Anderson (Eds.), *Handbook of Organizational Institutionalism*: 413-430. SAGE Publications

Greenwood, R., Suddaby, R., & Hinings, C.R. 2002. Theorizing change: the role of professional associations in the transformations of institutionalized fields. *Academy of Management Journal*, 45: 58-80

Heclo, H. 2008. ***On Thinking Institutionally (On Politics)***. Paradigm Publishers

Heinich, N. 2009. ***La fabrique du patrimoine. De la cathédrale à la petite cuillère*.** Maison des Sciences de l'Homme : Ethnologie de la France

Hilpinen, R. 2011, Artifact. In E.N. Zalta (Eds.), *The Stanford Encyclopedia of Philosophy*, cf. <http://plato.stanford.edu/archives/win2011/entries/artifact/>

Højgaard Christiansen, L. 2013. Brewing organizational responses to institutional logics. *Ph.D. from IOA, Copenhagen Business School*: Copenhagen

Højgaard Christiansen, L., & Lounsbury, M. 2013. Strange Brew: Bridging Logics via Institutional Bricolage and the Reconstitution of Organizational Identity. In M. Lounsbury & E. Boxenbaum (Eds.), *Institutional Logics in Action, Research in the Sociology of Organizations*, 39B: 199-232. Emerald Group Publishing

Innes, J.E., & Booher, D.E. 1999. Consensus Building as Role Playing and Bricolage. *Journal of the American Planning Association,* 65(1): 9-26

Jepperson, R.L. 1991. Institutions, institutional effects, and institutionalism. In W.W. Powell & P.J. DiMaggio (Eds.), *The new institutionalism in organizational analysis*: 143-163. University of Chicago Press

Jokilehto, J. 1986. A History of Architectural Conservation. *Institute of Advanced Architectural Studies Ph.D. Thesis.* The University of York: England

Jones, C., Boxenbaum, E., & Anthony, A. 2013. The Immateriality of Material Practice in institutional logics. In M. Lounsbury & E. Boxenbaum (Eds.), *Institutional Logics in Action, Research in the Sociology of Organizations,* 39A: 51-75. Emerald Group Publishing

Jones, C., & Massa, F.G. 2013. From novel practice to consecrated exemplar: Unity Temple as a case of institutional evangelizing. *Organization Studies*, 34: 1099–1136

Jones C., Maoret M., Massa, F.G., & Svejenova, S. 2012. Rebels with a cause: Formation, contestation, and expansion of the de Novo category ‘‘Modern Architecture’’ (1870-1975). *Organization Science,* 23: 1523–1545

Justesen, L., & Mik-Meyer, N. 2012. ***Qualitative Research Methods in Organization Studies (1st Edition).*** Hans Reitzels Forlag

Köhler, W. 1929. ***Psychologie de la Forme*.** Folio Essais (2000)

Kreiner, K. 2012. Organizational Decision Mechanisms in an Architectural Competition. In A. Lomi & J.R. Harrison (Eds.) *The Garbage Can Model of Organizational Choice: Looking Forward at Forty, Research in the Sociology of Organizations*, 36: 399-429. Emerald Group Publishing Limited

Kreiner, K. Jacobsen, P.H., & Jensen, D.T. 2011. Dialogues and the Problems of Knowing. Reinventing the Architectural Competition. *Scandinavian Journal of Management,* 27(1): 160-166

Lanzara, G.F. 1999. Between transient constructs and persistent structures: Designing systems in action. *Journal of Strategic Information Systems*, 8: 331-349

Lawrence, T.B., Leca, B., & Zilber, T.B. 2013. Institutional Work: current research, new directions and overlooked issues. *Organization Studies*, 34(8): 1023-1033

Lawrence, T.B., & Suddaby, R. 2006. Institutions and Institutional Work. In S.R. Clegg, C. Hardy, T.B. Lawrence & W.R. Nord (Eds.) *Handbook of organization studies (2nd Ed.)*: 215-254. SAGE

Leca, B., & Naccache, P. 2006. A critical realist approach to institutional entrepreneurship. *Organization,* 13(5): 627-665

Lévi-Strauss, C. 1962/1966. ***La Pensée Sauvage***. Plon: Paris

Locke, K. 2001. ***Grounded Theory in Management Research***. SAGE: London

McDonnell, T.E. 2010. Cultural objects as objects: Materiality, urban space, and the interpretation of AIDS campaigns in Accra, Ghana. *American Journal of Sociology*, 115(6): 1800-1852

Olesen, C. 2009. ***Genius Loci for architectural developers & advisors***. Professional Memo : Gentofte

Patriotta, G., Gond, J.P., & Schultz, F. 2011. Controversies, orders of worth, and public justifications. *Journal of Management Studies*, 48(8): 1804-1836

Perkmann, M., & Spicer, A. 2014. How Emerging Organizations Take Form: The Role of Imprinting and Values in Organizational Bricolage, *Organization Science,* Articles in Advance: 1–22

Peterson, R.A. 1999. ***Creating Country Music: Fabricating Authenticity***. University of Chicago Press.

Phillips, N., Lawrence, T.B., & Hardy, C. 2004. Discourse and institutions. *Academy of Management Review,* 29: 635-652

Pinch, T. 2008. Technology and institutions: living in a material world, *Theory Soc***,** 37: 461-483

Polanyi, M. 1966. ***The Tacit Dimension***. Routledge & Kegan Paul : London

Quinn-Trank, C., & Washington, M. 2009. Maintaining an institution in a contested organizational field: the work of the AACSB and its constituents, In T. B. Lawrence, R. Suddaby, & B. Leca (Eds.), *Institutional work: Actors and agency in institutional studies of organizations* : 236-261. Cambridge University Press

Rafaeli, A., & Vilnai-Yavetz, I. 2004. Emotion as a connection of physical artifacts and organizations. *Organization Science*, 15: 671-686

Raviola, E., & Norbäck, M. 2013. Bringing technology and meaning into institutional work: Making news at an Italian business newspaper. *Organization Studies*, 34: 1171–1194

Rao, H., Monin, P., & Durand, R. 2005. Border crossing: Bricolage and the erosion of categorical boundaries in French gastronomy. *American Sociological Review*, *70*(6): 968-991

Ray, J.L., & Smith, A.D. 2012. Using photographs to research organizations: Evidence, considerations, and application in a field study. *Organizational Research Methods*, 15(2) : 288–315

Riegl, A. 1903. ***Le Culte Moderne des Monuments : son essence et sa genèse.*** Seuil, Collection Espacements (2001) : France

Rojas, F. 2010. Power through institutional work: Acquiring academic authority in the 1968 third world strike. *Academy of Management Journal*, 53(6)*:* 1263–1280

Rose, G. 2006. ***Visual methodologies: An introduction to the interpretation of visual materials (2nd ed.)***. SAGE Publications LA

Scott, W.R. 2008. ***Institutions and organizations: ideas and interests (3rd ed.)***. Thousand Oaks: SAGE

Suchman, M.C. 2003, The Contract as Social Artifact. *Law Soc. Rev.,* 37: 91–142

Suddaby, R. 2006. What grounded theory is not. *Academy of Management Journal*, 49: 633–642

Vilatte, J.C. 2007. Audioguides et musées. Paper presented at Formation *« Évaluation »,* Castres

Weick, K.E. 1998. Improvisation as a mindset for organizational analysis*. Organization Science*, 9(5): 543-555

Zahra, S.E., Gedajlovic, E., Neubaum, D.O., & Shulman, J.M. 2009. A typology of social entrepreneurs: Motives, search processes and ethical challenges. *Journal of Business Venturing*, 24(5): 519-532

Zilber, T.B. 2013. Institutional logics and institutional work: Should they be agreed? In M. Lounsbury & E. Boxenbaum (Eds.), *Institutional Logics in Action, Research in the Sociology of Organizations,* 39A: 77-96. Emerald Group Publishing

TABLE 1

The selected listed buildings

Name of the Building	Country	Type of Cases (Flyvbjerg, 2006)	Date of Construction	Date of Modernization	Reasons of the Works
Nyboder	Denmark	Paradigmatic / Critical	1631	2011 - 2014	Built by King Christian IV, Nyboder underwent renovation between 2011 and 2014 to allow students of the Danish army to keep living there. These famous yellow houses are the most typical residential area of Denmark.
Munkegård Skole	Denmark	Maximum Variation	1954-1955	2005	The building was built by the famous Arne Jacobsen. While dealing with the signs of wear, the architects had to renovate it and to think about a new extension, according to the Jacobsen's old detailed drawings to bring back some missing details.
Sølvgade Skole	Denmark	Maximum Variation	1847	2012	The main objective of the renovation of the Denmark's oldest primary school was to create a new extension for extracurricular activities in order to answer new teaching demands.
French Pantheon	France	Stratified	1790	2013-2015	Old church built in 1790 by the architects Soufflot and Rondelet, it is used as a cenotaph dedicated to the French Grands Hommes that promoted the Republic. Even though the Pantheon undergoes never-ending restorations, the study focuses on the Dome and its upper Lantern renovations.
Hôtel de Vendôme	France	Stratified	1707	2014-2015	This building hosts the Parisian École des Mines. The current renovation concerns the Schlumberger Lecture Hall that is considered as obsolete regarding new teaching standards and despite the prestigious engineer name attached to it and the school reputation.
Molitor Swimming pool	France	Random	1929	2007-2014	Abandoned until the end of 1980s, the Parisian city hall asked for its complete renovation after it became a popular street-art spot. The building opened again as a luxurious swimming pool in May 2014.

FIGURE 1

The data structure

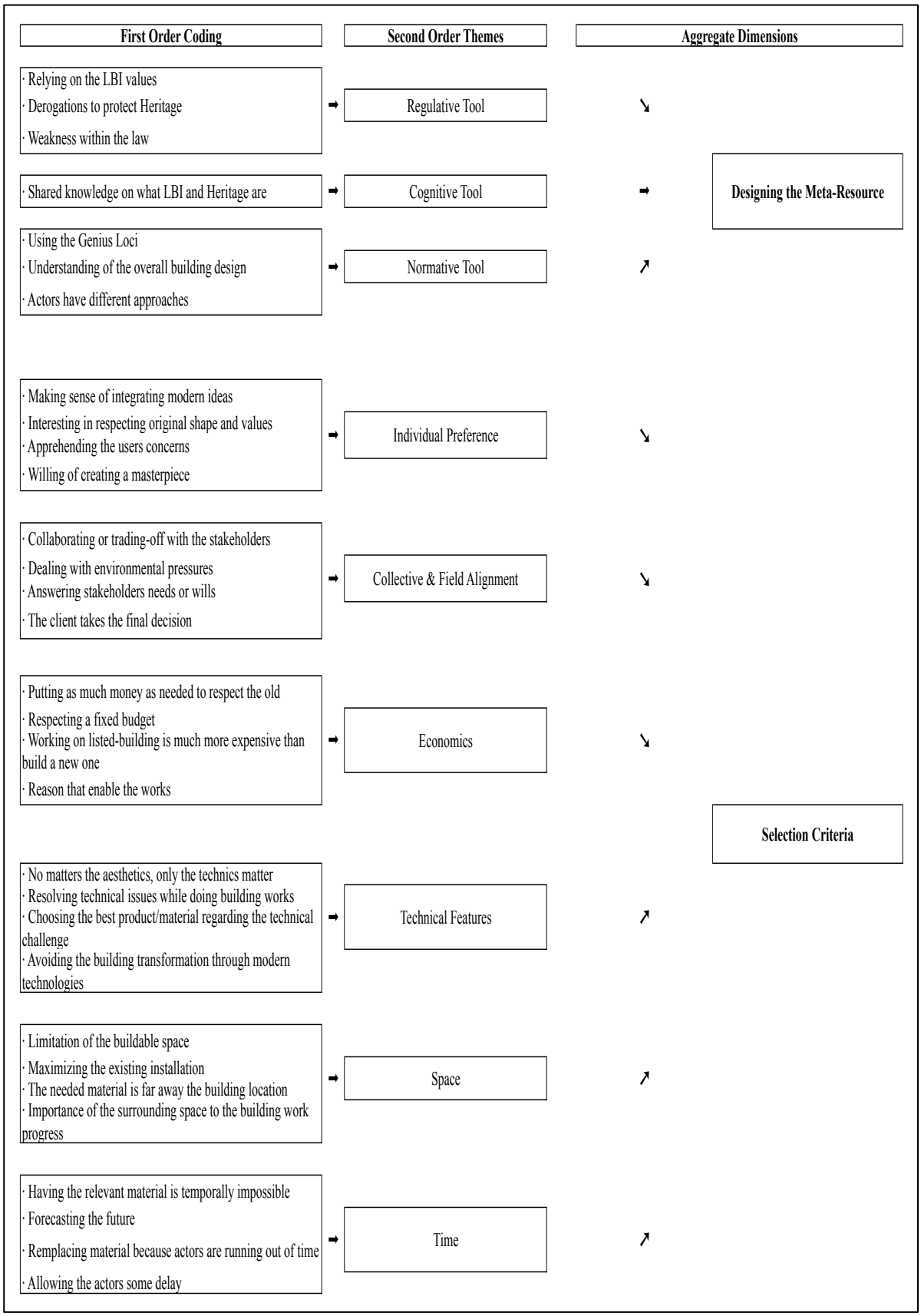

FIGURE 2

The design of the meta-resource: the constructed authenticity

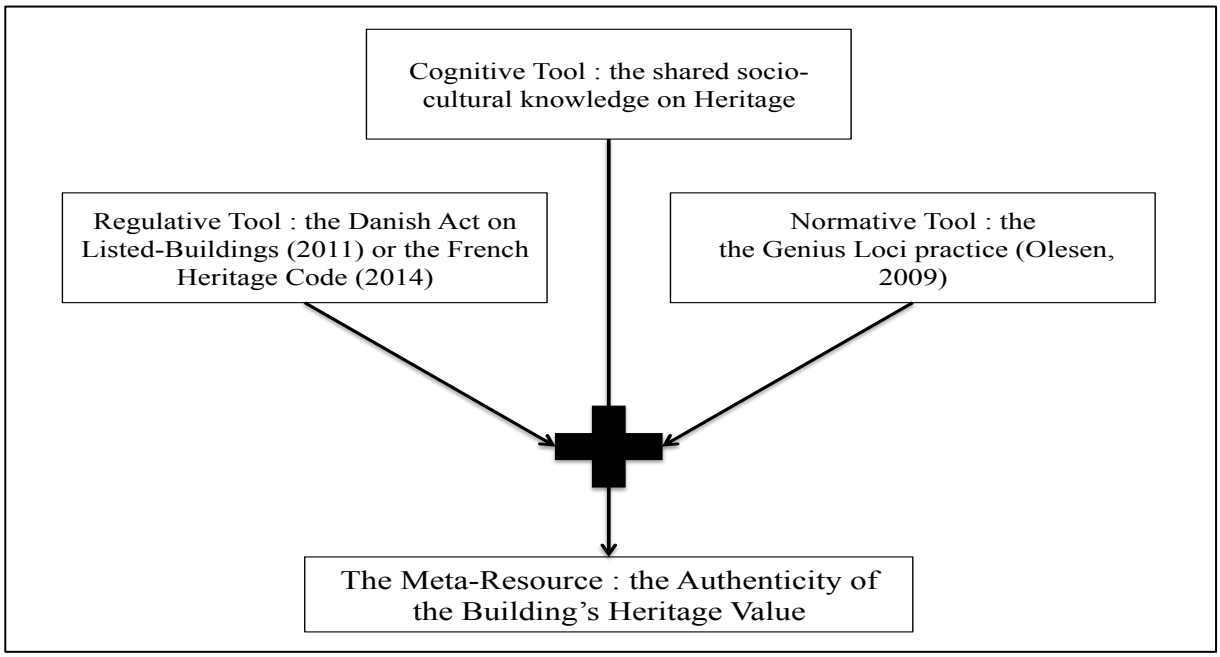

FIGURE 3

The micro-dynamics of collective bricolage in the case of institutional maintenance